

MEDVEDEV, C. V.

PA 25/49T12

USSR/Engineering
Construction Industry
Earthquakes

Nov/Dec 48

"The All-Union Antiseismic Conference,"
C. V. Medvedev, 2 pp

"Iz Ak Nauk SSSR, Ser Geog i Geofiz"
Vol XII, No 6

Reports on meeting 10-15 Sep 48 in Yerevan of
All-Union Conf on Antiseismic Constr, organized
by Cen Antiseismic Bu, Acad Sci USSR, and All-
Union Sci Eng Tech Soc of Builders. Lists works
presented by members attending.

25/49T12

MEDVEDEV, S. V.

"An Experiment in New Regional Division of the Moldavian SSSR According to Zones of Seismic Activity," Symposium of Articles and Lectures (which is No. 5 (132) in the series entitled "Works of the Geophysical Inst.," AS USSR Press, Moscow and Leningrad, 1949.

U-1442, 28 Aug 51

MEDVEDEV, S. V.

23282 MEDVEDEV, S. V. Opyt novogo rayonirovaniya Moldavskoy SSR po zonam seysmicheskoy, aktivnosti. Trudy Geofiz. in-ta (akad. nauk SSSR). No. 5, 1949, S. 38-48. -- Bibliogr: 8 nazv.

SO: Letopis, No. 32, 1949.

MEDVEDEV, S.V.

27702

Bor'ba s razrushitel'nymi posledstviyami sil'nykh zemletreseniy.
Vestnik akad. nauk SSSR, 1949, No. 8, s. 28-33.

SO: Knizhnaya Letopis, Vol. 1, 1955

USSR/Geophysics - Seismic Intensity 1952

"Evaluation of Seismic Intensity (Measured in Balls) in Dependence Upon Ground Conditions," S. V. Medvedev

"Trudy Geofiz Inst, Ak Nauk SSSR" No 14 (141), pp 29-52

Examines the problems concerning the influence of ground conditions on the intensity of seismic actions. Presents means for detg the increase of seismic intensity, in balls, and shows certain prerequisites for conducting seismic regionalization.

230T66

Thanks G. A. Gamburtsev, G. P. Gorshkov, A. G. Nazarov and E. F. Savarenskom for their valuable assistance in completing this work.

230T66

MEDEV, S. V.

MEDVEDEV, S.V.

"New Seismic Scale," Trudy Geofiz. in-ta, No 21 (148), 1953

USSR/Geophysics - Earthquake forecasting

MEDVEDEV, S.V.

FL 343

Card 1/1

Author : Medvedev, S. V.

Title : Chronicles: Investigations in the field of earthquake forecasting (Session of the Council on Seismology, Academy of Sciences of the USSR, at Stalinabad)

Periodical : Izv. AN SSSR. Ser. geofiz. 1, 100-103, Jan/Feb 1954

Abstract : From 1 to 5 October 1953, the Council on Seismology in the Presidium of the Academy of Sciences USSR held its visiting session at Stalinabad, which was organized jointly with the Academy of Sciences of Tadzhik SSR. Brief description is given of the various reports heard at the session, which was devoted to investigations on earthquake forecasting. Main reports by; G. A. Gamburtsev, V. I. Bune, V. F. Bonchkovskiy, A. Ye. Ostrovskiy, and S. V. Medvedev.

Institution : -

Submitted : -

MEDVEDEV, S.V.

Seismometric observations in the Ashkhabad zone. Biul.Sev. po seism.
no.1:46-66 '55. (MIRA 9:9)

1.Geofizicheskiy institut AN SSSR.
(Ashkhabad region--Seismometry)

MEDVEDEV, S.V., Doctor of Technical Sciences

"A new seismic scale for determining the grading of earthquakes", a paper given at the 50th Anniversary Session of the Seismic Station "Pulkovo", 25-29 Sep 1956, Leningrad.

SUM. I322

Medvedev, S.V.

15-57-5-6048

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,
p 50 (USSR)

AUTHOR: Medvedev, S. V.

TITLE: Compilation of an Atlas of Intense Earthquakes in the
USSR (O sostavlenii atlasa sil'nykh zemletryaseniy na
territorii SSSR)

PERIODICAL: Tr. koordinats. soveshchaniya po seysmostoyk. str-vu,
1954, Yerevan, AN ArmSSR, 1956, pp 89-102.

ABSTRACT: Bibliographic entry

Card 1/1

15-57-10-14719

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
p 225 (USSR)

AUTHORS: Medvedev, S. V., Nazarov, A. G.

TITLE: The Chief Trend of Investigating Earthquake-Proof
Structures (Osnovnyye napravleniya issledovaniy
seysmostoykosti sooruzheniy)

PERIODICAL: Tr. koordinats. soveshchaniya po seysmostoyk. str-vu,
1954, Yerevan, AN ArmSSR, 1956, pp 103-115

ABSTRACT: The authors give a general survey on the state of the
question of studying earthquake-proof construction;
and principal problems are pointed out applicable to
defining the course of further study. They note, in
particular, the necessity of continuing the work of
seismic classification of the territory of the USSR
on the basis of profound study of the structures, the
rate of seismic waves through geologic formations, and
the evaluation of soil condition to danger from earth-
quakes. Work should also be continued on developing

Card 1/2

MEDVEDEV, S.V., doktor tekhnicheskikh nauk.

Study of earthquakes (meeting of the council on seismology).
Vest.AN SSSR 26 no.5:88-89 My '56. (MLBA 9:8)
(Seismology)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033310004-6

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033310004-6"

SOV/124-57-7-8391

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 7, p 142 (USSR)

AUTHOR: Medvedev, S. V.

TITLE: The Relationship Between the Effect of an Earthquake on a Structure and the Periods of the Structure's Natural Vibrations (Zavisimost' seysmicheskikh vozdeystviy ot periodov sobstvennykh kolebaniy sooruzheniy)

PERIODICAL: Tr. Geofiz. in-ta AN SSSR, 1956, Nr 36 (163), pp 80 113

ABSTRACT: For the purpose of analyzing the effect of earthquakes on structures the author proposes that the ground vibrations be represented by the action spectrum $\alpha - x_0 \psi(T) \epsilon(\lambda)$. To enable him to arrive at the spectrum coefficients $\psi(T)$, he has evolved two methods namely, a phase-plane method and a vector diagram method. On the basis of 80 separate seismograph recordings of earthquakes he determines the maximum displacements α of pendulums having various vibration periods (T) ranging from 0.1 to 2.0 sec and a constant damping factor $\lambda = 0.5$, and he determines also the maximum displacements x_0 of a pendulum having a vibration period $T_0 = 0.25$ sec and a damping factor $\lambda = 0.5$. Values for x_0 are obtained also for cases

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SOV/124-57-7-8391

The Relationship Between the Effect of an Earthquake on a Structure and (cont.)

wherein the displacements are caused by explosions, vibrating machinery, and by buildings in the process of sustaining earthquake damage. From the ratio of $\mathcal{H}$ to x_0 values are found for the spectrum coefficient ψ ; these values exhibit a wide scatter. The author proposes mean values for ψ . From the values found for ψ he calculates the spectrum coefficients for the velocities and accelerations

B. I Karapetyan

Card 2/2

SOV/124-57-7-8389

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 7, p 141 (USSR)

AUTHOR: Medvedev, S. V.

TITLE: The Effect of Internal-friction forces on Earthquake-induced Vibrations in Buildings (Vliyaniye sil vnutrennego treniya na kolebaniye zdaniy pri zemletryaseniakh)

PERIODICAL: Tr. Geofiz. in-ta AN SSSR, 1956, Nr 36 (163), pp 114-126

ABSTRACT: The author examines the vibration-damping effect exerted within a structure by its internal-friction forces as a result of a variation in the seismic action spectrum $\mathcal{H} = x_0 \psi(T) \epsilon(\lambda)$ due to a variation in its logarithmic damping factor λ . For buildings with vibration periods whose basic mode (T) lies within the range 0.17-2.65 sec the values obtained for the logarithmic damping factor λ fall within the range 0.15-0.37. Assuming that $\epsilon(\lambda) = 1$ when $\lambda = 0.5$, the author proceeds to determine the values of $\epsilon(\lambda)$ for various other values of λ , and on the basis of this he proposes the relationship $\epsilon = 1/\sqrt{2\lambda}$, which he deems valid for all values of λ within the range 0.15-2.0.

Card 1/1

B. K. Karapetyan

MEDVEDEV, S. V.

60-36-9/10

AUTHOR: Medvedev, S. V.

TITLE: Seismometer for Determining Earthquake Intensity
(Seismometer dlya opredeleniya ball'nosti zemletrayseniy)

PERIODICAL: Trudy Geofizicheskogo instituta, AN SSSR, 1956, Nr 36,
pp. 127-133 (USSR)

ABSTRACT: The description, operation, and use of a seismometer for
determining earthquake intensities developed by the
author in 1951 and called the CSM is presented. The
seismometer measures intensities from numbers 5 to 10
on the scale described in the Transactions of the Geo-
physical Institute (Trudy Geofizicheskogo instituta),
Nr 21, 1953. There are 2 figures and 1 table.

AVAILABLE: Library of Congress

Card 1/1

MEDVEDEV, S. V.

BALAKINA, L. M.

5(10)

PHASE I BOOK EXPLORATION

508/1663

Akademiya nauk SSSR. Komitet po geodesii i geofizike.

Tezisy dokladov na XI General'noy assemblye Mezhimirovogo geofizicheskogo i geofizicheskogo soyuza. Mezhdunarodnaya assotsiatsiya seismologii i fiziki zemli (Abstracts of Reports Submitted to the XI General Assembly of the International Union of Geodesy and Geophysics. The International Association of Seismology and Physics of the Earth's Interior) Moscow, 1957. 102 p. /Parallel texts in Russian and English/ 1,500 copies printed.

No additional contributors mentioned

PURPOSE: This booklet is intended for geophysicists, especially those specializing in seismology.

COVERAGE: This collection of articles deals with the structure and composition of the Earth and phenomena related thereto. The majority of the articles concern studies of earthquakes and seismic waves. Other articles cover the structure of the Earth's crust and mountain roots; the elastic properties of rocks at high pressures; the piezoelectric effect of rocks and the method of modelling in tectonophysics. The collection also contains articles on the Earth's thermal history, the microseismic method of tracing storms and others.

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MEDVEDEV, S.V.

Determining the intensity of earthquakes. *Biul. Sov. oo seism.*
no.6:105-108 '57. (MIRA 11:3)

1. Institut fiziki Zemli AN SSSR, Moskva.
(Seismometry)

MEDVEDEV, S V

3(10)

PHASE I BOOK EXPLOITATION

SOV/2458

Akademiya nauk SSSR. Institut fiziki zemli

Voprosy inzhenernoy seysmologii, Vyp. 1 (Problems in Engineering Seismology, Nr 1)
Moscow, Izd-vo AN SSSR, 1958. 129 p. (Series: Its: Trudy, no. 1/168/) 1,600
copies printed.

Eds.: S.V. Medvedev, Doctor of Technical Sciences, and A.Z. Kats, Candidate of
Physical and Mathematical Sciences; Ed. of Publishing House: N.V. Shebalin;
Tech. Ed.: N.D. Novichkova.

PURPOSE: The book is intended primarily for seismologists; it may also be of inter-
est to construction engineers.

COVERAGE: This issue of the Transactions of the Institute of Earth Physics treats
questions in seismology and the effect of seismic tremors on man-made structures.
S.V. Medvedev describes a multi-channel method of measuring vibrations in a rigid
structure on an elastic foundation. The use of the vibrograph VEGIK, oscillograph
POB-12, and galvanometers GB - III and GB - IV in the method is described. The
author thanks Ye.S. Borisevich and D.P. Kirnos. References accompany each
article.

Card 1/3

Problems in Engineering Seismology, Nr 1)

SOV/2458

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AVAILABLE: Library of Congress

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MM/gmp
10-22-59

MEDVEDEV, S.V.

Investigating the vibration of buildings caused by seismic shocks. Trudy Inst.fiz.zem. no.5:131-192 '59.

(MIRA 13:6)

(Earthquakes and building)

MEDVEDEV, S.V.

Relation between focal depth and isoseismal lines. Trudy
Inst.fiz.zem. no.5:94-99 '59. (MIRA 13:6)
(Seismometry)

GORSHKOV, G.P.; MEDVEDEV, S.V., doktor tekhn.nauk, otv.red.; PARCHENSKIY,
A.K., red. izd-va; MARKOVICH, S.G., tekhn.red.

[Seismotectonic problems and the division of the territory of
the Chinese People's Republic into seismic regions] Voprosy
seismotektoniki i seism'eskoe raionirovanie territorii Kitai-
skoi Narodnoi Respubliki. Moskva, Izd-vo Akad.nauk SSSR, 1960.
53 p. (Akademiia nauk SSSR. Sovet po seismologii. Biulleten',
no.7). (MIRA 13:3)
(China--Earthquakes) (China--Geology, Structural)

MEDVEDEV, S.

807/5334

PHASE I BOOK EXPLANATION

Академия наук СССР. Институт Физики Земли

Voprosy inzhenernoy seismologii, vyp. 3 (Problems in Engineering Seismology, No. 3) Moscow, 1960. 191 p. 1,700 copies printed. (Series: Fiz. Trudy, no. 10 (177))

Resp. Eds.: S.V. Medvedev, Doctor of Technical Sciences, and A.Z. Kata, Candidate of Physics and Mathematics; Ed. of Publishing House: L.K. Kibalyeva; Tech. Ed.: P.S. Kashira.

PURPOSE: This book is intended for seismologists, and engineers concerned with the construction of earthquake-resistant buildings.

COVERAGE: This is a collection of 15 articles by different authors on problems of engineering seismology. Individual articles discuss the effects of quakes on various structures; seismic activity in the Sorbi-Khosta, Krasnaya Polyana, and Pokrovsk-Ural'skiy regions; and ground vibrations during strong earthquakes. One article discusses the effect of the detonation of 3100 tons of explosives on buildings located 1000 m away. No personalities are mentioned. Each article is accompanied by references.

TABLE OF CONTENTS:

Butovskiy, Ye. M., B.A. Predanaya, V.K. Ischev, B.V. Kondratyuk, P.O. Semenov, A.A. Trelov, V.I. Mizer, and A.D. Izhukov. Bulletin of Strong Earthquakes in the USSR during 1957	3
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AVAILABLE: Library of Congress

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6-88-61

(14)

MEDVEDEV, S V.
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PHASE I BOOK EXPLOITATION

80V/4068

Akademiya nauk SSSR. Sovet po seysmologii

Byulleten', No. 8: Voprosy seysmicheskogo rayonirovaniya (Bulletin of the Council on Seismology, Academy of Sciences USSR, No. 8: The Problems of Division Into Seismological Districts) Moscow, 1960. 233 p. 1,300 copies printed.

Resp. Ed.: S. V. Medvedev, Doctor of Technical Sciences; Eds. of Publishing House: I. A. Rezanov, and L. K. Nikolayeva; Tech. Ed.: T. P. Polenova.

PURPOSE: This publication is intended for seismologists.

COVERAGE: The publication contains articles based on reports presented at a meeting of the Council on Seismology held in Moscow, March 20-26, 1958. The articles reflect the present state of work conducted in seismic "regionalization" and discuss the following problems: methods of seismic regionalization and microregionalization, methods of compiling intermediate scale regional seismic maps, instrument and descriptive data on earthquakes in different seismic regions of the USSR, and the relationship between seismicity and geological structure. The articles are accompanied by diagrams, tables, and bibliographic references.

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Bulletin of the Council (Cont.)

80V/4062

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Card 2/6

MEDVEDEV, S. V.

"The Forecast of Seismic Effects on Constructions."

report submitted for the Second World Conference on Earthquake Engineering, Tokyo and Kyoto, Japan, 11-18 July 1960.

MEDVEDEV, S.V.

Problems in establishing seismic regions. Biul. Sov. po seism.
no.8:5-27 '60. (MIRA 13:10)

1. Institut fiziki Zemli AN SSSR.
(Seismology)

REZANOV, I.A.; RASTVOROVA, V.A.; LEONOV, M.N.; Prinimali uchastiye:
ANDREYEV, S.S.; GAL'PERIN, Ye.I.; DONABEDOV, A.T.; KATS, A.Z.;
KOSMINSKAYA, I.P.; LEONOV, M.N.; MASARSKIY, S.I.; ~~MEDVEDEV~~
~~S.V.~~; PETRUSHEVSKIY, B.A.; PUCHKOV, S.V.; RASTVOROVA, V.A.;
REZANOV, I.A.; SAVARENSKIY, Ye.F.; KHARIN, D.A.; Red karty:
GAMBURTSEV, G.A.

Establishment of detailed seismic regions as exemplified by
a region of western Turkmenistan. Biul. Sov. poseism. no.8:
131-141 '60. (MIRA 13:10)

1. Institut fiziki Zemli AN SSSR.
(Turkmenistan--Seismology)

43427

S/169/62/000/011/008/077
D228/D307

2. / 300

AUTHOR: Medvedev, S.V.

TITLE: Determining the number of points (the intensity) of earthquakes

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 11, 1962, 25, abstract 11A149 (In collection: Zemletryaseniya v SSSR, M., AN SSSR, 1961, 103-125)

TEXT: The seismic scale now accepted in the USSR is based on the number of points of an earthquake (I). This is defined by the maximum displacement x_0 of a spherical pendulum with a natural oscillation period of 0.25 sec and a logarithmic damping decrement of 0.5. If $I = 4$, $x_0 < 0.5$ mm, and if $I = 11$, $x_0 > 32$. The points thus determined are compared with the subjective experiences of people, the destruction of buildings, and other ground phenomena. The aggregate of these criteria forms the descriptive part of the scale. The damage to buildings described in it is subdivided according to groups of buildings, the degree of damage, and the relative amount

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Determining the number ...

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of damaged buildings. The influence of ground conditions is expressed by an increase or decrease of 1-2 points relative to the number of points on standard ground. The increment of the number of points is calculated from the formula:

$$n = 1.67 \lg \frac{(vp)}{(vp)_{st}} + e^{-0.04h^2}$$

(vp is the acoustic rigidity, h is the ground-water depth). The mean isoseismal radii are approximately proportional to the focal depth. A nomogram, allowing the focal depth to be ascertained from the isoseismal map, is cited. Most existing scales give an inaccurate idea of the accelerations acting in strong earthquakes. The processing of accelerograms shows that in the range of periods from 0.1 to 0.5 sec the upper acceleration limit is connected with the number of points by the correlation $\alpha = 8.2^I$ mm/sec²; for long periods α is inversely proportional to it. A fuller quantitative estimate of the force of an earthquake is given by the quantity χ -- by the spectrum of action of seismic vibrations upon structures.

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This quantity can be represented as the displacement of a pendulum, when the maximum value of the shift is mathematically related to the maximum displacement of the base of the structure. The results of the mass processing of seismograms and accelerograms of strong earthquakes are cited, as are those of special analyzer recordings.
[Abstracter's note: Complete translation]

Card 3/3

S/169/62/000/012/019/095
D228/D307

AUTHOR: Medvedev, S.V.

TITLE: Main trends of scientific research on Carpathian and Balkan seismic zoning on the basis of the attempted seismic zoning of Soviet territory

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1962, 23-24, abstract 12A219 (Studii și cercetări astron. și seismol., 6, no. 2, 1961, 173-180 (summary in Rus.))

TEXT: Research on Carpathian and Balkan seismic zoning must be conducted by the joint efforts of specialized institutions in Czechoslovakia, Hungary, Poland, Rumania, Bulgaria and the USSR. It would thereby be expedient to use the attempt at similar work being carried out in the Soviet Union. The essence of the method of preparing a seismic zoning map of the USSR's territory in 1957 was that zones of equal earthquake hazard were outlined on the basis of seismologic and geological data. Information about the space-time distribution of earthquake foci was used, as were recent tect-
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Main trends of scientific ...

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onic movements to which the seismicity was related. Within the zones contoured the maximum intensity of expected earthquakes was established on the grounds of engineering and seismic data, from the magnitude of the strongest earthquakes. For the completion of work on the seismic zoning of Carpathian and Balkan territory the solution of the following problems can be contemplated in the next few years: the preparation of one earthquake catalog, of one map of former earthquakes, and of one scale for defining the force of earthquakes in the Carpathian-Balkan zone.

[Abstracter's note: Complete translation]

Card 2/2

KARTSIVADZE, G.N.; MEDVEDEV, S.V.; NAPETVARIDZE, Sh.G.; ZAVRIYEV, K.S.,
red.; DUZINKEVICH, S.Yu., red.; BUDARIKA, E.M., red. izd-va;
GOL'BERG, T.M., tekhn. red.

[Earthquakeproof construction abroad] Seismostoikoe stroitel'stvo
za rubezhom; po materialam Vtoroi vsemirnoi konferentsii po
seismostoikomu stroitel'stvu v 1960 g. v g. Tokio. Pod ob-
shchei red. K.S.Zavrieva i S.IU.Duzinkevicha. Moskva, Gosstroi-
izdat, 1962. 223 p. (MIRA 16:1)

(Earthquakes and building)

PHASE I BOOK EXPLOITATION

SOV/6102

Medvedev, Sergey Vasil'yevich, Doctor of Technical Sciences,
Professor

Inzhenernaya seysmologiya (Engineering Seismology) Moscow,
Gosstroyizdat, 1962. 283 p. 6000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut fiziki Zemli
im. O. Yu. Shmidta.

Scientific Ed.: M. G. Korf, Candidate of Technical Sciences;
Ed. of Publishing House: B. A. Begak; Tech.Ed.: N. V. Sherst-
neva.

PURPOSE: The book is intended for civil engineers engaged in re-
search and design of engineering structures in seismic regions.

COVERAGE: The author presents a concise outline of results of
seismic-engineering research on the design and construction of

Card 1/2

MEDVEDEV, S.V.; LYAMZINA, G.A.

Seismic effect of blasting in mines. Trudy Inst. fiz.
Zem. no.21. Vop. inzh. seism. no.6:73-102 '62. (MIRA 15:9)
(Blasting)

KIRILLOV, F.A.; MEDVEDEV, S.V.; SHAMIN, V.M.

Instructions on studying the seismic action of blasts on
structures. Trudy Inst. fiz. Zem. no.21. Vop. inzh. seism.
no.6:118-122 '62. (MIRA 15:9)

(Blasting)
(Strains and stresses)

MEDVEDEV, S. V.

Economic expediency of antiseismic reinforcement of buildings.
Trudy Inst. fiz. Zem. no.22. Vop. inzh. seism. no.7:59-65 '62.
(MIRA 15:10)

(Earthquakes and building)

MEDVEDEV, S. V.; KORF, M. G.

Upheaval spectra during earthquakes rated 7 and 8 obtained on
an electronic calculating machine. Trudy Inst. fiz. Zem. no.22.
Vop. inzh. seism. no.7:89-94 '62. (MIRA 15:10)

(Seismometry) (Electronic calculating machines)

MEDVEDEV, S. V.; BUNE, V. I.; GZELISHVILI, I. A.; KARAPETYAN, B. K.;
KATS, A. Z.; LYAFINA, G. A.; PIRUZYAN, S. A.; POPOV, V. V.;
SAMKOV, B. N.; SHAGINYAN, S. A.

Instructions on conducting seismic microzoning. Trudy Inst. fiz.
Zem. no.22. Vop. inzh. seism. no.7:112-122 '62.
(MIRA 15:10)

(Seismology)

GORYACHEV, A.V.; YERSHOV, I.A.; KIRILLOV, F.A.; KUZIN, I.P.;
LYAMZINA, G.A.; MEDVEDEV, S.V.; POPOV, V.V.; FEDOTOV, S.A.;
SHTEYNBERG, V.V.

Seismic microzoning of the Petropavlovsk-Kamchatskiy area.
Trudy Inst. fiz. Zem. 28 Vop. inzh. seism. no.8:3-60 '63.
(MIRA 16:11)

MEDVEDEV, S.V.; SINITSYN, A.P.

Vibrations of arch dams under seismic loads. Trudy Inst. fiz.
Zem. 28 Vop. inzh. seism. no.8:126-134 '63. (MIRA 16:11)

MEDVEDEV, S. V.

Quantitative data on earth movements during strong earthquakes.
Bul. Sov. po seism. no.14:14-27 '63. (MIRA 16:4)

(Earth movements)

MEDVEDEV, Sergey Vasil'yevich, doktor tekhn. nauk, prof.;
SADOVSKIY, M.A., retsenzent

[Seismic effects after mine blasting] Seismika gornyykh vzry-
vov. Moskva, Izd-vo "Nedra," 1964. 187 p. (MIRA 17:4)

1. Chlen-korrespondent AN SSSR (for Sadovskiy).

MEDVEDEV, S. V.; SINITSYN, A. P.

"Tests and theoretical studies on the earthquake resistant properties of arch dams."

report presented at the 32nd Exec Mtg & 4th Intl Conf, Intl Comm on Large Dams, Edinburgh, 4-7 May 64.

L 44805-65 EPT(1)/SMA(L) Feb 68

ACCESSION NR AMR011622

BOOK EXPLOITATION

Medvedev, Sergey Vasil'yevich (Doctor of Technical Sciences, Professor)

S/14
B+1

Seismic effects of mine explosions (Seysmika gornyykh varyvov), Moscow, Izd-vo "Nedra", 1964, 187 p. illus., bibliogr. Errata slip inserted. 1,400 copies printed.

TOPIC TAGS: geophysics, seismic energy, underground explosion, seismic wave, seismology

PURPOSE AND COVERAGE: Problems related to the seismic effects produced on buildings and structures as a result of open pit mining and construction blasting operations are discussed. Instrumentation and measuring techniques are described which are used to determine ground motion and explosion-induced vibrations. Methods are reviewed for determining seismic effects of various explosive charges and safety rules are given for blasting operations in built-up areas. This book is intended for explosion specialists in open pit mining operations and on construction projects.

areas. This book is intended for explosion specialists in open pit mining operations and on construction projects.

TABLE OF CONTENTS [abridged]:

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L 45803-65

ACCESSION NR AM4041622

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Ch. II. Instrumentation for recording vibrations during explosions -- 16
Ch. III. Intensity of ground vibration depending on weight of charge and distance -- 42
Ch. IIII. Effect of seismic vibrations on structures during explosions -- 69
Ch. V. Vibration of buildings induced by explosions -- 95
Ch. VI. Vibration of structures induced by explosions -- 119
Ch. VII. Safe distances between explosion point and structure during blasting operations -- 156
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SUBMITTED: 15Feb64

SUB CODE: ES

NO REF SOV: 077

OTHER: 014

Card 2/2 01

L 8889-65 EWT(1)/EWA(h) Feb AFWL/ESD(t)/SSD/AFETR GW

ACCESSION NR: AT4045970

S/2619/64/000/033/0003/0010

AUTHOR: Medvedev, S.V. (Professor)

TITLE: Spectra of the effect of seismic oscillations accompanying explosions B

SOURCE: AN SSSR. Institut fiziki Zemli. Trudy*, no. 33(200), 1964. Voprosy*
inzhenernoy seysmologii (Problems of earthquake engineering), no. 9, 3-10

TOPIC TAGS: engineering seismology, seismology, seismic oscillation, explosion,
seismic-resistant construction

ABSTRACT: The seismic effect of an explosion on a structure can be investigated by
using the spectra of the effect, as is customary in the analysis of seismic oscillations
caused by natural earthquakes. The spectrum of the effect expresses in quantitative

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$$\frac{d^2x}{dt^2} + \frac{2\lambda}{T} \frac{dx}{dt} + \frac{4\pi^2}{T^2} x = \frac{d^2u}{dt^2}$$

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The solution of this equation with the initial displacements C and the phase j has the following form:

$$x(t) = Ce^{-\lambda t/T} \cos(p_1 t - j) + \frac{1}{p_1} \int_0^t e^{-\lambda(t-\xi)/T} \frac{d^2u}{d\xi^2}(\xi) \sin p_1(t-\xi) d\xi, \quad (2)$$

The maximum displacement x can be considered as a function of the period of oscillation of a pendulum and its attenuation for oscillation of the ground at a particular point during a particular explosion

$$x = x(T, \lambda). \quad (3)$$

Expression (3) can be termed the spectrum of effect on a structure, expressed in the form of displacement of the pendulums. This spectrum characterizes the seismic oscillations at the earth's surface. However, for a study of the seismic effect of

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ACCESSION NR: AT4045870

the plastic and inelastic processes associated with the seismic effect of explosions on structures. The velocity of oscillation of a pendulum as a function of time $v(t) = \dot{x}(t)$ can be obtained by differentiating (2) for the parameter t .

can be obtained by differentiating (2) for the parameter t :

$$v(t) = -Cp e^{-\lambda t} \sin(p_1 t - j + \psi) + \frac{p}{p_1} \int_0^t e^{-\lambda(t-\tau)} \frac{dv}{d\tau}(\tau) \sin[p_1(t-\tau) + \frac{\pi}{2} + \psi] d\tau. \quad (4)$$

Here $p = \frac{2\pi}{T}$ in contrast to

$$p_1 = \sqrt{\frac{4\pi^2 - \lambda^2}{T^2}} = \sqrt{p^2 - \frac{\lambda^2}{T^2}}. \quad (5)$$

the phase angle $\psi = \arctg \frac{\lambda}{p_1 T}$. In order to obtain the acceleration of oscillation of a pendulum as a function of time, $a(t) = \ddot{x}(t)$, it is necessary to differentiate equation (4) for the parameter t :

$$a(t) = -Cp e^{-\lambda t} \cos(p_1 t - j + 2\psi) + \frac{p}{p_1} \int_0^t e^{-\lambda(t-\tau)} \frac{dv}{d\tau}(\tau) \cos[p_1(t-\tau) + 2\psi] d\tau. \quad (6)$$

end 3/4

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ACCESSION NR: AT4045970

Expression (4) for the velocity of oscillation of a pendulum is given as a function of time, the same as expression (5) for determination of acceleration of the oscillation of a pendulum. In order to estimate the effect on structures it is important to know their maximum (in absolute value) magnitude. As with the displacements X , the maximum velocities and accelerations are dependent on the period T .

and their logarithmic decrements of attenuation :

$$\sigma = \sigma(T, \lambda); \quad (7)$$

$$\alpha = \alpha(T, \lambda). \quad (8)$$

The three expressions (3), (7) and (8) are the spectra of effect of seismic oscillations on structures. The first of these represents the spectrum of the effect expressed in maximum displacements of the pendulums, the second — the spectrum of the effect expressed in maximum velocities, and the third — the spectrum of the effect expressed in the maximum accelerations of oscillations of the pendulums. The integrands in (2),

in the maximum accelerations of oscillations of the pendulums. The integrands in (2),

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L 8889-65

ACCESSION NR: AT4046970

(4) and (6) can be considered approximately identical. Since $\lambda^2 \ll 4\pi^2$, it can be assumed that $p/p_1 = 1$. On this basis it is possible to obtain the following relations between the maximum values of displacements, velocities and acceleration of oscillations of the pendulums in the spectra of effect:

$$u = l/p,$$

(9) - (10)

$$a = pv,$$

The author describes the application of these principles in detail, with examples. The author also describes the dependence of mean velocity on reduced distance in the spectrum of the effect of seismic oscillations accompanying explosions. This dependence can be

of the effect of seismic oscillations accompanying explosions. This dependence can be used for a quantitative evaluation of the seismic effect of explosions on structures with different periods of natural oscillations. Orig. art. has: 15 formulas, 6 figures and 1 table.

ASSOCIATION: Institut fiziki Zemli AN SSSR (Institute of Physics of the Earth, AN SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: FS

NO REF SOV: 006

OTHER: 001

Card 5/5

YERSHOV, I.A.;

1941-1942

1941-1942

1941-1942

L 20424-66 EWT(1)/EWA(h) GW

ACC NR: AT6007194

SOURCE CODE: UR/2619/65/000/036/0003/0033

AUTHOR: Yershov, I. A.; Medvedev, S. V. (Professor); Fedotov, S. A.; Shteynberg,
V. V.

ORG:

*none**
12-44-55

24
BH

TITLE: Seismic microregionalization of Petropavlovsk (Kamchatka)

SOURCE: *AN SSSR. Institut fiziki Zemli. Trudy, no. 36 (203), 1965. Seysmicheskoye mikrorayonirovaniye; voprosy inzhenernoy seysmologii (Seismic microdistricting; problems of engineering seismology), no. 10, 3-33

TOPIC TAGS: seismicity, seismic mapping, seismic survey, microregionalization

ABSTRACT: The city of Petropavlovsk (Kamchatka) lies in seismic zone IX (according to the new map of seismic zones of the USSR), a few tens of kilometers from the Pacific Ocean seismic belt. The slope of the basin off southern Kamchatka is one of the most active segments of the circum-Pacific belt. The city lies in the north-eastern part of the Kurile-Kamchatka folded zone. The geomorphology and geology of the district are described briefly. Investigations over a period of three years (1961-64) by the Pacific Ocean Seismic Expedition of the Institute of Geophysics, AN SSSR, on Kamchatka have led to refinement of intensity data for Petropavlovsk (Kamchatka) and have permitted compilation of maps showing divisions of the city into seismic subdistricts. This work represents the first combined operation of instrumental work for such detailed subdivisions of seismic districts. Data include

Card *1/2*

UDC: 550.34

L 20424-66

ACC NR: AT6007194

recordings of nearby earthquakes by automatic equipment, measurements of longitudinal and transverse wave velocities, and measurements of microseisms. The work has furnished better data for compiling maps of seismic districts and for comparing different methods of determining intensity increments by instrumental recording. Different instrumental methods have shown rather good agreement. It is noted that the most valuable information concerning possible seismic activity may be obtained by analyzing ground movements from nearby earthquakes by means of automatic equipment. An essentially new aspect of the maps is the delineation of zones with different spectra of earthquake effects on buildings and other structures. This is an important contribution to engineering practice in constructing earthquake-proof buildings. At many points in zones of scale IX along the Kamchatka coast and on the Kuriles, geologic conditions of bedrock and soils are similar to those in Petropavlovsk (Kamchatka). The same technique of dividing into districts has been followed, but where instrumental data have not been available, characteristics of bedrock and soils as observed at Petropavlovsk have been used as the basis for delineating districts. Orig. art. has: 13 formulas, 14 figures, and 4 tables. [04]

SUB CODE: 08/ SUBM DATE: none/ ORIG RED: 034/ OTH REF: 006/ ATD PRESS: 4222

Card

2/2 ULR

L 45616-66

ACC NR: AP6033983

SOURCE CODE: UT/0029/66/168/005/1132/1134

AUTHOR: Koridalin, Ye. A.; Medvedev, S. V.; Rustanovich, D. N.; Tokmakov, V. A.;
Khadzhiyevskiy, D.

ORG: Institute of Physics of the Earth, Im. S. Ya. Shchit, AN SSSR (Institut fiziki
Zemli AN SSSR); Skoplje University Seismic Station, Skoplje

TITLE: Seismic conditions around Skoplje after the earthquake of 26 July 1963 on
the basis of instrumental observations

SOURCE: AN SSSR. Doklady, v. 168, no. 5, 1966, 1132-1134

TOPIC TAGS: earthquake, tectonics, seismology/Skoplje

ABSTRACT: In 1964-1965 Soviet and Yugoslav seismologists carried out instrumental
seismic investigations in the neighborhood of Skoplje, in Yugoslavia, site
of a disastrous earthquake on 26 July 1963. VEGIK Soviet seismic stations
with a magnification of 20,000 were used at five stations surrounding the
epicentral zone and it was possible to determine epicenters and focal depths
with high accuracy. During the year about 200 epicenters were determined
(a map accompanies the text); the energy class of the recorded earthquakes
was in the range $4 \leq K \leq 10$ ($K = \log E$ (E in J)). It was determined that
the weak recorded earthquakes are the aftershocks of the main earthquake.
Seismic activity still is high but will continue to abate. The main earth-

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UDC: 550.34

09-20 20-35

L 45616-66

ACC NR: AP6033983

quake was in a region of very strong tectonic movements. In general, it was possible to determine the full seismic picture at Skoplje, but there are no data which could be used for predicting the possibility or time of a recurrence. This paper was presented by Academician V. V. Shuleykin on 7 January 1966. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 08 / SUBM DATE: 27Dec65 / ORIG REF: 001 / SOV REF: 006

Card 2/2 mjs

EDVEDEV T.!
PUZNOVICH, L.S.; PSHENNIKOV, V.I.; STOROZHEV, V.M.; MEDVEDEV, T.I.

Using natural sodium brine to cool industrial liquids. Prom.
energ. 12 no.8:18 Ag '57. (MIRA 10:10)
(Soda industry) (Cooling)

MEDVEDEV, V.

Measuring ionizing radiation. Voen. znan. 40 no.12:28-29

D '62

(MIRA 18:1)

MEDVEDEV, V. (Krasnoyarsk)

Determining the level of national consumption. Vop. ekon. no. 4:
147-151 Ja '63. (MIRA 16:6)

(Consumption (Economics))

MEDVEDEV, V...khudozhnik-konstruktor

Abstract information service on industrial design.
Tekh.est. 2 no.12:28 D '65.

(MIRA 19:1)

1. Leningradskoye spetsial'noye khudozhestvenno-konstruktorskoye
byuro.

I 45269-66 EWT(1) RO

ACC NR: AP6022534 (A) SOURCE CODE: UR/0017/66/000/004/0027/0028

AUTHOR: Medvedev, V.

ORG: none

TITLE: Observation posts of the civil defense system

SOURCE: Voyennyye znaniya, no. 4, 1966, 27-28

TOPIC TAGS: civil defense, observation post, radioactive contamination/IDP-2
roentgenometer

ABSTRACT: The author analyzes the tasks of observation posts of the Soviet civil defense system organized at inhabited localities and of national economic significance installations. Observation posts are intended for detecting nuclear explosions, chemical and bacteriological contamination, and radioactivity. An observation post consists of 3 men equipped with special devices and individual means of protection. The basic device for detecting and measuring radioactive contamination is said to be the DP-2 roentgenometer. Methods of detecting nuclear explosions and chemical

Card 1/2

L 45269-66

ACC NR: AP6022534

and bacteriological contamination are described. Orig. art. has: 2 figures.

[NT]

SUB CODE: 15/ SUBM DATE: none/

Card 2/2

MEDVEDEV, V.A. (g. Artemevsk)

Machinery for servicing large bridges. Put' i put. khoz. no. 2:37 P '57.
(Railroad bridges--Repairing) (MIRA 10:4)

BUDYKA, Nikolay Khristoforovich, kand. ekon. nauk; MEDVEDEV, Vadim Andreyevich, kand. ekon. nauk; SIBIREV, A.I., kand. ekon. nauk, nauchnyy red.; UDAL'TSOV, O.A., red. izd-va; GURDZHIYEVA, A.M., tekhn. red.

[The seven-year plan and reducing the costs of industrial production] Semiletka i snizhenie sebestoimosti promyshlennoi produktsii. Leningrad, Ob-vo po raspr. polit. i nauchn. znaniy RSFSR, Leningr. otd-nie, 1961. 61 p. (MIRA 14:9)

(Costs, Industrial)

MEDVEDEV, Vadim Andreyevich; TRAVNIKOV, A.M., kand.ekon.nauk, nauchnyy
red.; VOROB'YEV, G.S., red.izd-va; GURDZHIYEVA, A.M., tekhn.red.

[Paths of the development and rapprochement of public and
collective farm forms of property] Puti razvitiia i sblizheniia
kolkhoznoi i obshchenarodnoi form sobatvennosti. Leningrad,
Ob-vo po rasprostraneniui polit. i nauchn.znanii RSFSR, Leningr.
otd-nie, 1959. 42 p. (MIRA 13:4)

(Collective farms)

(Property)

MEDVEDEV, V. A. Doc Cand Agr Sci -- (diss) "Utilization of
the silo^{ed} corn-cobs ⁱⁿ ~~for~~ the meat fattening of ^{hogs.} ~~pigs.~~" Mos, 1957.
16 pp 22 cm. (All-Union Scientific Research Inst of ^{Animal Husbandry} ~~Cattle-Breeding~~.
~~Section of Feeding of Agricultural Animals~~), 110 copies
(KL, 21-57, 104)

-82-

MEDVEDEV V.A.

USSR / Farm Animals. Hogs.

U-6

Abs J ur : Ref Zhur - Biologiya, No 16, 1957, 72105

Author : Medvedev, V.A.

Title : The Increase in Meat in Pigs Fed by Different Quantities of
Corn on the Cob.

Orig Pub : Svinovodstvo, 1956, No 10, 19-22

Abstract : The feeding of pigs with an excellent quality of corn, harvested at the end of the milky-waxy ripeness, in quantities of 37 percent of the total ration, aided in the digestibility and utilization of the nutritional elements in theration. The savings in concentrates during 119 days for each porker amounted to 120 kg as compared with the controls, fed on concentrates alone. The cost of feed, expended on 1 centner of increase in weight was lowered by 11 rubles. By increasing the quantity of corn above 35-40 percent there was a lowering in the consumption of the feed, less increase in weight and its increased cost.

Card : 1/1

- 36 -

MANUYLOVA, M.F.; MEDVEDEV, V., uchitel' geografii; KULIKOV, A.V.;
NAROZHNIY, G.A. (Moskva)

Editor's mail. Geog. v shkole 26 no.3:60-62 My-Je '63.
(MIRA 16:6)

1. Inspektor shkol Vladimirovskogo (sel'skogo) oblastnogo otdela
narodnogo obrazovaniya (for Manuylova). 2. Shkola rabochey
molodezhi No.3 g. Lipetska (for Medvedev). 3. Starshiy pioner-
vozhatyy Sarayevskoy sredney shkoly Ryazanskoy oblasti (for
Kulikov).

(Geography—Study and teaching)

POMORTSEVA, Ye.N.; MEDVEDEV, V.A.; ZAMYATIN, S.R.

Experiments in the industrial use of refractory concrete. Ogneupory
29 no.7:308-313 '64. (MIRA 18:1)

1. Kuznetskiy metallurgicheskiy kombinat.

LEVCHENKO, L.M., inzh.; MEDVEDEV, V.A., inzh.

Tractor-mounted service tower for construction of electric substations.
Energ. stroi. no.34:100-101 '63. (MIRA 17:1)

1. Trest "Elektroyuzhmontazh".

KOROLEV, A.I.; BLINOV, S.T.; LUBNETS, I.A.; KOBURNEYEV, I.M.; TURUBINER, A.L.; VASIL'YEV, S.V.; CHERNENKO, M.A.; BELOV, I.V.; TELESOV, S.A.; MAZOV, V.F.; MEDVEDEV, V.A.; MAL'KOV, V.G.; BUL'SKIY, M.T.; TRUBETSKOV, K.M.; SHNEVEROV, Ya.A.; SLADKOSHTEYEV, V.T.; PALANT, V.I.; KUROCHKIN, B.N.; ZHDANOV, A.M.; BELIKOV, K.N.; SABIYEV, M.P.; GABRUZ, G.A.; PODGORETSKIY, A.A.; ALFEROV, K.S.; NOVOLODSKIY, P.I.; MOROZOV, A.N.; VASIL'YEV, A.N.; MARAKHOVSKIY, I.S.; MALAKH, A.V.; VERKHOVTSYEV, E.V.; AGAPOV, V.F.; VECHER, N.A.; PASTUKHOV, A.I.; BORODULIN, A.I.; VAYNSHTEYN, O.Ya.; ZHIGULIN, V.I.; DIKSHTSEYN, Ye.I.; KLIMASENKO, L.S.; KOTIN, A.S.; MOLOTOV, E.A.; SIVERSKIY, M.V.; ZHIDETSKIY, D.P.; MIKHAYLETS, N.S.; SLEPKANOV, P.N.; ZAVODCHIKOV, N.G.; GUDENCHUK, V.A.; NAZAROV, P.M.; SAVOS'KIN, M.Ye.; NIKOLAYEV, A.S.

Reports (brief annotations). Biml. TSNIICRM no.18/19:36-39 '57.
(MIRA 11:4)

1. Magnitogorskiy metallurgicheskiy kombinat (for Korolev, Belikov, Agapov, Dikshteyn).
2. Kuznetskiy metallurgicheskiy kombinat (for Blinov, Vasil'yev, A.N., Borodulin, Klimasenka).
3. Chelyabinskiy metallurgicheskiy zavod (for Lubnets, Vaynshteyn).
4. Zavod im. Dzerzhinskogo (for Koburneyev).
5. Zavod "Zaporozhstal'" (for Turubiner, Mazov, Podgoretskiy, Marakhovskiy, Savos'kin).
6. Makeyevskiy metallurgicheskiy zavod (for Vasil'yev, S.V., Mal'kov, Zhidetskiy, Al'ferov).
7. Stal'proyekt (for Chernenko, Zhdanov, Zavodchikov).
8. VNIIT (for Belov).
9. Stalinskiy metallurgicheskiy zavod (for Telesov, Malakh).

(Continued on next card)

KOROLEV, A.I.---(continued) Card 2.

10. Nizhne-Tagil'skiy metallurgicheskiy Kombinat (for Medvedev, Novolodskiy, Vecher). 11. Zavod "Azovstal'" (for Bul'skiy, Slepkanov). 12. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Trubetskoy). 13. Ukrainskiy institut metallov (for Smeyerov, Sladkoshteyev, Kotin). 14. Zavod "Krasnyy Oktiabr'" (for Palant). 15. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplo tekhniki (for Kurochkin). 16. Zavod im. Voroshilova (for Sabiyev). 17. Oshlyabinakiy politekhnicheskiiy institut (for Morozov). 18. Giprostal' (for Garbuz). 19. Ural'skiy institut chernykh metallov (for Pastukhov). 20. Zavod im. Petrovskogo (for Zhigulin). 21. Ministerstvo chernoy metallurgii USSR (for Molotkov, Siverskiy). 22. Glavspetsstal' Ministerstva chernoy metallurgii SSSR (for Nikolayev).
(Open-hearth process)

137-58-6-11684

Translation from Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 67 (USSR)

AUTHOR: Medvedev, V.A.

TITLE: Oxygen Applications in Open-hearth Steelmaking (Primeneniye kisloroda v martenovskom proizvodstve)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii, 1957, Vol 18, pp 287-291

ABSTRACT A description is offered of the experimental use of O₂ in 370-t open-hearth furnaces at the Novo-Tagil plant. The O₂ is delivered into the furnace through tuyeres installed in the duct flush with the front thereof, at an angle of 8° to the horizontal, and 200 mm above the floor of the gas port. The use of O₂ resulted in certain changes in smelting procedures. The slags became more highly oxidized, the consumption of ore in the charge dropped from 12.8 to 10.6%, the basicity of the slags on fusion rose from 2.2 to 2.5. A heat-regimen graph developed at the plant is adduced. The use of O₂ for 5 months in 1956, with an average 24.5% enrichment of the air, made possible an increase in 15.1% in the hourly output of the furnaces and a reduction of 17.5% in the unit fuel consumption per shop.

Card 1/2

137-58-6-11684

Oxygen Applications in Open-hearth Steelmaking

A maximum increase in output is obtained upon simultaneous diminution of the charging period to 1.25-1.5 hour, a reduction in the heating and pouring period of the iron by 1.25-1.4 hour, an increasing in heat input during these periods to 29-30 million kcal/hr, and an increase in the mean hourly O₂ flow to 1700-1800 nm³/hr. When O₂ is supplied, an open-hearth functions more evenly throughout an entire foundry campaign. Smooth functioning of the furnaces requires regular blowing out or washing of the regenerator checkers and removal of flue dust from beneath the ports during the campaign.

1. Open hearth furnaces--Performance
2. Oxygen--Applications
3. Steel--Production

V.G.

Card 2/2

MEDVEDEV, V. A., Cand Tech Sci (diss) -- "Investigation of coverings obtained by high-frequency metallization with cast iron as applied to the restoration of parts". Moscow, 1960. 15 -- (Min Agric RSFSR, Moscow Inst of Mechanization and Electrification of Agric), 150 copies (KL, No 15, 1960, 135)

S/122/60/000/010/004/015
A161/A030

AUTHOR: Medvedev, V.A., Engineer

TITLE: High-Frequency Metallization with Cast Iron

PERIODICAL: Vestnik mashinostroyeniya, 1960, No.10, pp.22-24

TEXT: Information is given on experiments carried out by Moskovskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (Moscow Institute of Mechanization and Electrification of Agriculture) in cooperation with Zaporozhskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta elektrifikatsii sel'skogo khozyaystva (Zaporozh'ye Branch of the All-Union Scientific Research Institute of Electrification of Agriculture), under the guidance of Professor I.S.Levitskiy. High-frequency metallization apparatus MB4 -1 (MVCh-1) was connected with a ГЗ -46 (GZ-46) tube generator (250-300,000 cycles). The existing spraying head of other metallization apparatus proved suitable for spraying cast iron rods of 6-8 mm diameter. The metallized layer with the best mechanical properties had coatings obtained with an air pressure of 4.5 kg/cm² and a distance of 75-100 mm from nozzle to specimen. The cast iron contained 3.45% C total, 2.5% free C,

Card 1/3

High-Frequency Metallization with Cast Iron

S/122/60/000/010/004/015
A161/A030

and 2.39% Si. The effect of chemical composition of cast iron was studied with especially cast rods with 2.08-4.16% C, 2.2-7.98% Si, and 0.98-10% Cu. The optimum carbon content stated is 0.97-1.13%. Addition of copper up to 2.05% reduced porosity and raised mechanical strength. Optimum chemical composition gave coatings with properties near metallized steel. Sprayed cast iron worked-in better than hardened "45" steel and had a lower friction coefficient. Antifriction properties were tested in a combination of sprayed coatings and ACM (ASM) bearing alloy (3.5-4.9% Sb; 0.5-0.7% Mg; balance aluminum). It was concluded that high antifriction properties and wear resistance of cast iron coatings are due to the combined effect of the following factors: 1) High microhardness preventing destruction of separate particles. The coating consists of ledeburite and cementite of 910-1245 kg/mm² microhardness, as well as martensite and troosto-martensite of 650-868 kg/mm². 2) The presence of spots enriched with austenite (reducing brittleness of the metallic base of particles), and partial transformation of residual austenite in the wearing layer into martensite through the effect of micro-plastic deformations and friction heat. As stated in X-ray analysis with an YPC-50 (URS- 501) apparatus ($J = 11$; $v = 30$ kv), the

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High-Frequency Metallization with Cast Iron

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quantity of residual austenite in coating was 33-57%. It was observed that the less free the carbon was which was present in cast iron, the more residual was the austenite formed. 3) The presence of graphite inclusions was found by chemical analysis carried out at NATI and Moskovskiy institut stali (Moscow Steel Institute). The content of free carbon in the coating was 46-77% of the initial in cast iron rods. The experiment results show that high-frequency cast iron spraying may be recommended.

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S/194/61/000/006/057/077
D201/D302

AUTHORS: Medvedev, V.A. and Autonov, S.N.

TITLE: Applying ultrasonic and gamma defect detection to the control of welded structures, forgings and castings

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1961, 17, abstract 6 E120 (V sb. Nekotoryye vopr. tekhnol. proiz-va turbin (Tr. Leningr. metallich. z-da, no. 7), M.-L., 1960, 377-388)

TEXT: The results of investigations with ultrasound penetration and gamma defect detection, as applied to the control of weldings, castings and combined structures are considered. The defect detector Y3A-7H (UZD-7N) of the TsNIITMASH with prismatic probes was used, with inlet angles between 30 and 50°. The experiments were carried out at 2.5 (for welded seams up to 150 mm thick) and 1.8 mc/s. The sensitivity of the instrument for a given depth of pene- ✓

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Applying ultrasonic and gamma defect... D201/D302

tration was adjusted using a standard with side apertures 2, 2.5 and 3 mm. The welded castings, having a coarse crystal structure, were investigated for the effect of ultrasonic frequency and cleanliness of the contact surface of the specimen. The possibility of determining the character of the defect from the pulse shape at the CRT screen varying the probe displacement or rotation is discussed. Recommendations are given on the suitability of steam turbine plates on the basis of the ultrasonic control results. The equipment is described together with the methods of controlling weldings and castings by means of gamma-rays. 14 figures. [Abstracter's note: Complete translation]

Card 2/2

MEDVEDEV, V.A., inzh.

Using the basic principles flow detection for the control of welded joints. [Trudy] IMZ no. 11:376-385 '64. (MIRA 17:12)

GLADILIN, Leonid Vladimirovich; MEDVEDEV, V.A., red.

[Selecting steel for the enameling of die-stamped
objects] Vybor stali dlia emalirovaniia shtampovykh
izdelii. Leningrad, 1965. 14 p. (MIRA 18:10)

ANGERVAKS, Al'fred Ivanovich, inzh.; MEDVEDEV, V.A., red.

[Using glass lubricants in the hot pressure working of
metals and alloys] Primenenie stekol dlia smazok pri
goriachei obrabotke metallov i splavov davleniem. Le-
ningrad, 1965. 22 p. (MIRA 18:1C)

AGEYEV, Nikolay Pavlovich, kand. tekhn.nauk; MEDVEDEV, V.A., red.

[Resistance to deformation of alloyed steels during hot
pressure working] Soprotivlenie deformirovaniu legiro-
vannykh stalei pri goriachei obrabotke davleniem. Lenin-
grad, 1965. 36 p. (MIRA 18:10)

L 1052-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) MJW/JD/HW

ACCESSION NR: AF5022355

UR/0133/65/000/007/0846/0848
669.18:658.562

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AUTHOR: Supov, A. V.; Prokoshkin, D. A.; Rakhshadt, A. G.; Madvedav, V. A.

44.55 6 44.55 44.55 44.55

TITLE: Effect of cold working on the physical properties and fine structure of steel subjected to thermomechanical treatment

14

SOURCE: Stal', no. 9, 1965, 846-848

TOPIC TAGS: cold working, spring steel, metal hardening, plastic deformation, mechanical heat treatment/ 55KhRG, spring steel

16,44.55

ABSTRACT: The hardening that occurs in steels following their thermomechanical treatment (TMT) is usually associated with the rise of a special fine structure with a higher density of defects and a corresponding distribution of defects. Hence it may be expected that on additional treatment of the fine structure (e.g. by means of limited plastic deformation) the properties of steel previously subjected to TMT should also markedly change. In this connection, the authors investigated the effect of cold plastic deformation on the properties of spring steel 55KhRG (0.52% C, 0.9% Cr, 1.1% Mn, 0.005% B) following its high-temperature

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ACCESSION NR: AP5022355

thermomechanical treatment (TRMT), on utilizing the hereditary hardening effect (the "reversibility" effect) which consists in that if a steel, following its TRMT, is tempered to a hardness allowing its machining with cutting tools, its reheating without deformation and tempering causes it to re-acquire the properties it had acquired directly following TRMT, i.e. the effect of the original work hardening is stably retained. In this particular case, "direct" TRMT was carried out at 950°C with deformation by rolling leading to a 50% reduction of area. Immediately after deformation the steel was quenched in oil. Subsequently, the specimens were tempered at 200-600°C; prior to tempering some of the specimens were cold-rolled with a 5% reduction in area. Reheating of the specimens produced the "hereditary hardening effect," i.e. restoration of the high level of strength properties, except in the specimens subjected to the cold plastic deformation with 5% reduction in area, which shows that even a limited degree of cold working eliminates the "hereditary hardening effect" by disturbing the uniformly distributed and stabilized systems of dislocations. The character of change in properties corresponds to the change in fine structure. The physical widening of the diffraction lines of the atomic planes of α -solid solution is greater without than with such cold working, in such cases. Orig. art. has 3 figures.

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L 1052-66

ACCESSION NR: AP5622355

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, SS

NO REF SOV: 005

OTHER: 000

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DP

SUPOV, A.V.; PROKOSHKIN, D.A.; RAKHSHTADT, A.G.; MEDVEDEV, V.A.

Effect of cold hardening on mechanical properties and fine
structure of heat treated steel. Stal' 25 no.8:846-848 S
'65. (MIRA 18:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut po
promyshlennoy i sanitarnoy ochistke gazov.

MEDVEDEV, Valentin Alekseyevich; YEFREKOVA, Ye.V., red.; ZUBKIN, A.S., red.;
BLAZHENKOVA, G.I., tekhn. red.

[Rules of conduct in contaminated areas] Pravila povedeniia v zara-
zhennom raione. Moskva, Izd-vo DOSAAF, 1958. 47 p. (MIRA 11:7)
(Air defenses)

MEDVEDEV, V.; MORDVINOV, V.

Behavior in a contaminated area. Voen.znan. 36 no.10:32-34 0 '60.
(MIRA 13:10)

(Civil defense)